

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

16-18. (canceled).

19. (previously presented) A method for fabricating a semiconductor device with a
trenched gate comprising:

etching a trench having substantially upright vertical sidewalls and a bottom surface in a
semiconductor substrate;

forming a trench-to-gate insulating layer inside the trench, wherein the trench-to-gate
insulating layer comprises a trench gate dielectric spacer formed on the upright vertical sidewalls
inside the trench and a trench gate tunneling dielectric formed on the bottom surface inside the
trench;

forming a trenched gate electrode on the trench-to-gate insulating layer inside the trench;

forming a source region and a drain region in the semiconductor substrate such that the
source and drain regions partially extend laterally underneath the bottom of the trench;

forming an inter-gate dielectric layer on a top surface of the trenched gate electrode;

forming a control gate electrode on a top surface of the inter-gate dielectric layer, and

wherein the step of forming a source region and a drain region comprises corner-limiting
diffusion process.

20-27. (canceled).

28. (previously presented) The method of Claim 19, further comprising:

forming an oxide layer on the surface of said semiconductor substrate; and

forming a nitride layer on said oxide layer.

29. (previously presented) The method of Claim 28, wherein said nitride is silicon

nitride.

30. (previously presented) The method of Claim 29, wherein said nitride is

approximately 1500 angstroms thick.

31. (previously presented) The method of Claim 28, wherein said oxide layer is

approximately 100 angstroms thick.

32. (previously presented) The method of Claim 28, further comprising planarizing said

trenched gate electrode using said nitride as a stop for the planarization process.

33. (previously presented) The method of Claim 28, further comprising removing said

nitride layer using a plasma etch.

34. (previously presented) The method of Claim 28, wherein said trench is between approximately 100 angstroms and 5000 angstroms wide.

35. (previously presented) The method of Claim 28, wherein said trench is between approximately 100 angstroms and 5000 angstroms deep.